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ABSTRACT

This short, narrative pamphlet on the weather and the logger accompanies the appropriate grade level curriculum guide.

(BP)



### Weather and the Logger

Grade 3

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## PROJECT COULD

# CAREER ORIENTATION UTILIZING LANGUAGE DEVELOPMENT

## A PACE PROJECT

## Elementary and Secondary Education Act of 1965

Project COULD was developed as a means of building skills, knowledges, attitudes upon elementary children's previously acquired backgrounds. and

language heard most frequently at home and in the immediate environment.

A series of units of instruction were developed from the concepts and Vocabulary of the industries indigenous to Coos County. The intention was to promote vocational awareness, exploration and language development for the students in grades 3 through 8.

Coos County Intermediate Education District, 2405 Colorado Street, North Materials prepared by Project COULD are available from the IMC of

"Mother, mother, come look. Our forest is on fire," Tom shouted from the living room. Fire danger had been high for weeks and Mrs. Brown hurried to see the television news.

Just last night the family had been talking about ways fires start. Tom found out that
most forest fires begin because people are careless with campfires and burning cigarettes. He
learned that lightning starts a lot of fires,
too.

The television announcer was explaining the fire danger rating scale used by forestry people to keep fire fighting crews alert. Vacationers are warned of hazardous conditions by the same scale. Mrs. Brown said, "The last three days have been rated 'extreme fire danger.' That is the highest on the scale."

"Wind went up to 20 miles an hour today," the television announcer said. He explained the fire rating system is based on wind, humidity, temperature and measurement of moisture content in the grasses, leaves and other foliage on the forest floor. The announcer reminded the viewers of the high temperatures and low humidity during the past week.

Tom and his mother watched 20 loggers on TV as they left on a truck to go to the area where the fire was out of control.

Tom knew fire danger lasts all summer long



because his father is a logger. Since fire weather occurs every year, rangers watch closely for the sparks. Tom's brother Dave is one of the fire spotters who sit in high towers with walls of windows so they can watch all directions. Dave uses special equipment to pinpoint the actual spot of the fire and relay the message to the fire fighters waiting close by.

Tom met many of the fire fighting troops as they passed through the logging camp. There were 15 in the crew stationed near their logging operation. Many were college students, like Tom's cousin Mike, who needed summer work. All were strong men ready for adventure outdoors. Mike was always one of the first sent when fire alarms



were called.

Tom questioned his mother about what Mike was doing as they watched helicopters on TV leaving with water lines and equipment to fight the raging fire. Mrs. Brown said, "Mike and the other four members of his crew are trying to put out that small blaze while they wait for help." She explained the helicopters would give some relief and extra fire fighting ability.

"What are water lines?" Tom asked his mother. She told him how the helicopters are used to lay the water hoses to put out fires. She said helicopters are also used to string emergency telephone lines so the fighters can contact the dispatcher in the fire camp.

"Helicopters are one of the best fire fighters," Mrs. Brown said. Men and supplies are taken to the front of the fire line in the whirly birds. "Helicopter pilots must be careful not to get too close to flames because they cannot get away fast," Mrs. Brown told Tom.

Tom's father came in before the bruadcast was finished. He untied his cork boots. The small nails sticking out of the bottom of the cork boots make it easier to walk on or around logs. All loggers wear them. Mr. Brown's hard hat was by the door on a special shelf. All loggers wear these, too, to protect them from head injuries.

Tom's father told him the fire would prob-



ably be out soon because the wind was changing. "Fire needs fuel, oxygen and heat," he explained. "Flames die down when fire fighters get rid of any one of these elements," he said. "Since the wind is dying down the fire will not spread fast," Mr. Brown continued. When the wind does not change, the fire fighters get rid of the oxygen or air by trying to smother the flames.

"Now Mike and his crev members will use water and fire retarding chemicals to lower the heat and put out the fire," Mr. Brown said. Other fire fighters are working to cut off the fuel by making firebreaks. He told Tom this is a wide path cleared by bulldozers. "When a fire reaches this firebreak, there is no fuel to burn." Mr. Brown said.

The fire was out in a few hours. When Mike returned, he told Tom how tractors were used to slash away the brush. "My crew sprayed the are as with back pack water pumps," Mike said. He shawed the pump to Tom. It holds five gallons of water. "Part of the time we shoot the water right into a blazing spot," Mike explained. "But some of the time we make a thin spray in the air to reduce the temperature," he continued.

When Tom got up the next morning, his father was already gone. Mr. Brown was concerned about the forest wound. He knows disease and insects hit the damaged trees and spread to nearby healthy



ones.

When Tom asked by his father left so early, Mrs. Brown said, "He is worried about erosion in the area where the trees burned."

"What is erosion?" Tom asked.

Mrs. Brown explained. "The trees and tangle on the forest floor that soaked up the face water have been killed. When the snow and its in the spring, it will run down the hillsides and with no trees to hold it in place it will carry away the dirt with it."

Tom's sister Sally added that if too much soil is removed the area will loose its watershed.

"What is a watershed?" questioned Tom.

Mrs. Brown explained the watershed is the area of land that supplies a stream with water. "Trees help protect the watershed from erosion by acting as barriers from the wind," Mrs. Brown said.

In just a few days Mr. Brown headed off with other loggers from the camp to help heal the fire wounds. When there is no fire danger, the logging teams are busy at work. He is the head bucker and some people call him the bull buck. He supervises all the workers falling trees and bucking them. He makes sure each man does his job well.

Mr. Brown was a bucker first. As a bucker Mr. Brown cut trees into logs. First he placed



limbs under the tree on the ground so the bottom will not split. Then he sawed the tree into the right lengths with a chain saw.

After a fire the first chore for the loggers is to cut down the dead and damaged trees. Mr. Brown marked the ones that were still usable because the wood was protected by the tree bark. The buckers cut them into logs.

Mr. Brown showed his crew how to push the damaged trees on the hillside into long rows on the slopes. This helps to keep the soil from being washed away by rain and melting snow. The trees decay in time and help make new soil. It took Mr. Brown's crew several days to build the erosion banks.





"Tomorrow we will turn the charred soil," Tom's dad told him one evening.

"Why do you turn the soil?" Tom asked.

"The soil of the burned area is deeply scorched," Mr. Brown explained. "If we left it alone, it would be years before anything would grow there. But we will turn the soil much like farmers plow. Small tractors will drag steel teeth over the area."

Mr. Brown said the foresters would plant seeds or young trees in the plowed soil later.

Two months later Tom drove over to the burn area with his father. "What are those big piles of trees?" Tom asked.

Mr. Brown said, "Do you remember I told you trees are needed on the slopes to prevent erosion. The ones that are not needed were shoved into those piles. When the weather is wet enough so there is no fire danger, these will be burned. Otherwise the dead, damaged trees on the ground would attract insects and disease."

Tom noticed some small new trees. He also noticed an unusual smell. Mr. Brown said, "The trees were sprayed yesterday. Weeds and brush can choke out the small trees that were planted in the burn area. These are sprayed with chemical killers so the trees will grow."

Mr. Brown wants to keep the forest green and full of trees so logging will continue.



"Wood is an important product," he told Tom.
"Keeping the forest green helps the environment
in other ways, too. It protects the watershed.
Fishing and hunting are best in a green forest."

"Towns are safer if the forest is green,"
Tom added. "We might have another fire if the
land becomes brush covered. The homes at the
bottom of the hill are safe from mud slides if
trees prevent the erosion of the soil."

"I'm glad more trees are growing in the burn

area," Tom said.

"That's right," his father said. "Everyone in the surroundings where people live and work, the environment, is better off with a green forest."



